

WHAT IS CLAIMED IS:

1. 1. A plasma display panel, comprising:
 - a transparent electrode pair spaced with a predetermined gap therebetween within a discharge cell, said transparent electrode pair including:
 - an expanding part having a width which enlarges towards a center of the discharge cell; and
 - a head part connected to the expanding part and having at least a substantially constant width.
2. The plasma display panel as claimed in claim 1, further comprising:
 - a stripe part positioned at the discharge cell and connected with the expanding part; and
 - a metal electrode connected to the stripe part.
3. The plasma display panel as claimed in claim 2, further comprising:
 - a stripe-shaped barrier rib for dividing the discharge cell with an adjacent cell; and
 - an address electrode provided in parallel to the barrier rib in a direction crossing the transparent electrode pair.

4. The plasma display panel as claimed in claim 2, further comprising:
 - a neck part provided between the stripe part and the expanding part and having one or more rounded sides.
5. The plasma display panel as claimed in claim 2, wherein said stripe part has a larger width than the metal electrode within a range of substantially 20 μ m to 60 μ m.
6. The plasma display panel as claimed in claim 3, wherein said expanding part includes:
 - a first side set to a range substantially equal to 50% to 150% of a width of the address electrode;
 - a second side being opposite to the first side and having a larger width than the first side; and
 - an inclined plane provided between the first side and the second side.
7. The plasma display panel as claimed in claim 6, wherein a width of the second side of the expanding part is larger than that of the first side and smaller than a distance between adjacent barrier ribs.
8. The plasma display panel as claimed in claim 2, wherein a distance between each end of the transparent electrode pair is approximately 50% to 95% of a pitch of the discharge cell.

9. The plasma display panel as claimed in claim 2, wherein a length of the head part is within a range equal to approximately 10% to 90% of a distance from the inner end of the stripe part until an end of the head part.

10. The plasma display panel as claimed in claim 3, further comprising:
a link, overlapped with the barrier rib, for connecting the head parts of said adjacent discharge cells to each other.

11. The plasma display panel as claimed in claim 10, wherein said link leans into ends of the opposite head parts.

12. The plasma display panel as claimed in claim 10, wherein said link is formed at a predetermined depth extending from the end of the head part into the expanding part.

13. The plasma display panel as claimed in claim 12, wherein said predetermined depth is approximately 10 μ m to 200 μ m.

14. The plasma display panel as claimed in claim 6, wherein said barrier rib includes a protrusion from each side thereof into a center of the discharge cell.

15. The plasma display panel as claimed in claim 14, wherein said protrusion includes an inclined plane having a same slope as the inclined plane of the expanding part.

16. The plasma display panel as claimed in claim 14, further comprising:
a link, overlapped with the barrier rib, for connecting head parts of said adjacent discharge cells to each other.

17. The plasma display panel as claimed in claim 16, wherein said link leans into ends of the opposite head parts.

18. The plasma display panel as claimed in claim 17, wherein said link is formed at a predetermined depth extending from the end of the head part into the expanding part.

19. The plasma display panel as claimed in claim 17, wherein said predetermined depth is approximately 10 μm to 200 μm .

20. A plasma display panel, comprising:
a first transparent electrode having a first head part protruding from one side of a discharge cell into a center of the discharge cell; and
a second transparent electrode which includes an expanding part having a larger width as it goes from other side thereof within the discharge cell into the center of the discharge cell in such a manner to be spaced by a predetermined gap from the first

transparent electrode within the discharge cell, and a second head part connected to the expanding part and having a substantially constant width.

21. The plasma display panel as claimed in claim 20, further comprising:
a stripe part positioned at the discharge cell and connected with the first head part and the expanding part; and

a metal electrode connected to the stripe part.

22. The plasma display panel as claimed in claim 21, further comprising:
a stripe-shaped barrier rib for dividing the discharge cell from an adjacent discharge cell; and
an address electrode provided in parallel to the barrier rib in a direction crossing the first and second transparent electrodes.

23. The plasma display panel as claimed in claim 22, wherein said stripe part has a larger width than the metal electrode within a range of substantially 20 μ m to 60 μ m.

24. The plasma display panel as claimed in claim 22, wherein said expanding part includes:

a first side set to a range substantially equal to 50% to 150% of the width of the address electrode;

a second side opposite to the first side and having a larger width than the first side; and

an inclined plane provided between the first side and the second side.

25. The plasma display panel as claimed in claim 24, wherein a width of the second side of the expanding part is larger than that of the first side and smaller than a distance between adjacent barrier ribs.

26. The plasma display panel as claimed in claim 21, wherein a distance from the outer end of the stripe part until the end of the second head part is approximately 75% of a distance between the outer ends of the opposite stripe parts.

27. The plasma display panel as claimed in claim 21, wherein a length of the second head part is within a range equal to approximately 10% to 90% of a distance from the inner end of the stripe part until the end of the head part.

28. The plasma display panel as claimed in claim 22, further comprising:

 a first link, overlapped with the barrier rib, for connecting the first head parts of said adjacent discharge cells to each other; and

 a second link, overlapped with the barrier rib, for connecting the second head parts of said adjacent discharge cells to each other.

29. The plasma display panel as claimed in claim 28, wherein each of said first and second links leans into each end of the first and second opposite head parts.

30. The plasma display panel as claimed in claim 28, wherein each of said first and second links is formed at a predetermined depth extending from each end of the first and second head parts into the expanding part.

31. The plasma display panel as claimed in claim 30, wherein said predetermined depth is approximately 10 μm to 200 μm .

32. A plasma display panel, comprising:

a sustain electrode pair including transparent electrodes spaced with a predetermined gap therebetween within a discharge cell, and metal electrodes connected to the transparent electrodes, said transparent electrode including:

a neck part connected to the metal electrode in such a manner to be separated between the discharge cell;

an expanding part connected to the neck part and having a width which enlarges as it goes into a center of the discharge cell; and

a head part connected to the expanding part and having a substantially constant width.

33. The plasma display panel as claimed in claim 32, further comprising:

a barrier rib for dividing the discharge cells from an adjacent discharge cell;

and

an address electrode provided in parallel to the barrier rib in a direction crossing the sustain electrode pair.

34. The plasma display panel as claimed in claim 32, wherein said neck part has a larger width than the metal electrode within a range of substantially 20 μ m to 60 μ m.

35. The plasma display panel as claimed in claim 33, wherein said expanding part includes:

a first side set to a range substantially equal to 50% to 150% of a width of the address electrode;

a second side opposite to the first side and having a larger width than the first side; and

an inclined plane provided between the first side and the second side.

36. The plasma display panel as claimed in claim 35, wherein a width of the second side of the expanding part is larger than that of the first side and smaller than a distance between adjacent barrier ribs.

37. The plasma display panel as claimed in claim 32, wherein a distance between each end of the transparent electrode pair is approximately 50% to 95% of the pitch of the discharge cell.

38. The plasma display panel as claimed in claim 32, wherein a length of the head part is within a range equal to approximately 10% to 90% of a distance from the inner end of the stripe part until the end of the head part.

39. The plasma display panel as claimed in claim 33, further comprising:
a link, overlapped with the barrier rib, for connecting the head parts of said adjacent discharge cells to each other.

40. The plasma display panel as claimed in claim 39, wherein said link leans into the ends of the opposite head parts.

41. The plasma display panel as claimed in claim 39, wherein said link is formed at a predetermined depth extending from the end of the head part into the expanding part.

42. The plasma display panel as claimed in claim 41, wherein said predetermined depth is approximately 10 μ m to 200 μ m.

43. The plasma display panel as claimed in claim 35, wherein said barrier rib includes:

a stripe part having a stripe shape; and

a protrusion from each side of the stripe part into the center of the discharge cell.

44. The plasma display panel as claimed in claim 43, wherein said protrusion includes an inclined plane having a same slope as the inclined plane of the expanding part.

45. A plasma display panel, comprising:

a pair of transparent electrodes having a predetermined gap therebetween within a discharge cell, wherein said transparent electrode including:

a stripe part;

a head part protruding from the stripe part into a center of the discharge cell within the discharge cell; and

a link for connecting the head parts into the electrodes to each other.

46. The plasma display panel as claimed in claim 45, further comprising:

a metal electrode connected to the stripe part; and

an address electrode provided in parallel to a barrier rib in a direction crossing the transparent electrode pair.

47. The plasma display panel as claimed in claim 46, wherein said link is formed at a predetermined depth extending from an end of the head part into the expanding part to thereby overlap with the barrier rib.

48. The plasma display panel as claimed in claim 47, wherein said predetermined depth is approximately 10 μm to 200 μm .